

IN THE CLAIMS:

Please cancel claims 5, 8, 28, and 29 without prejudice or disclaimer.

Please amend claims 1, 9, 10, 31, 32, and 37 as follows:

B<sup>2</sup>

1. (Amended) A purified and isolated metalloproteinase inhibitor comprising a polypeptide, wherein said polypeptide:

(a) [having the primary structural conformation] has as a mature protein, an amino terminal amino acid sequence comprising at least the amino acid residues 1 to 42 of Figure 2, and

(b) [biological properties] has at least one biological activity of naturally-occurring human metalloproteinase inhibitor, said biological activity selected from the group consisting of in vitro biological activity and immunological activity.

B<sup>3</sup>

9. (Amended) A polypeptide according to Claim 1 [which has the immunological properties] wherein said biological activity of naturally-occurring metalloproteinase inhibitor is immunological activity

10. (Amended) A polypeptide according to Claim 1 [which has the in vitro] wherein said biological activity of naturally-occurring metalloproteinase inhibitor is in vitro biological activity.

B<sup>4</sup>

31. (Amended) Purified and isolated human metalloproteinase inhibitor according to Claim 1 in glycosylated or nonglycosylated form free of association with any human protein [in glycosylated or nonglycosylated form].

32. (Amended) A [pharmaceutical] composition comprising [an effective amount of a] the polypeptide according to Claim 1 and a pharmaceutically acceptable diluent, adjuvant, or carrier.

B<sup>5</sup>

37. (Amended) A preparation of [MI] metalloproteinase inhibitor which is greater than 95% pure and which comprises less than 0.5 ng of pyrogen per 0.5 mg of metalloproteinase inhibitor.

Please add new claims 40-43.

B<sup>6</sup>

--40. (New) A polypeptide according to claim 1 wherein said polypeptide is a recombinantly produced polypeptide.

41. (New) A polypeptide according to claim 9 wherein said immunological activity is an ability to react with rabbit polyclonal antisera raised against human metalloproteinase inhibitor.

42. (New) A polypeptide according to claim 10 wherein said in vitro biological activity is an ability to inhibit collagenase.